AMENDMENTS TO THE CLAIMS:

Please amend claims 21, 23, 24, 26, and 30; and enter new claims 36-39 as shown in the following Listing of the Claims. The listing of the claims will replace all previous versions.

LISTING OF THE CLAIMS:

1. (Canceled) An pharmaceutical composition comprising a SMIP compound of formula (I):

X-Y-Z (I)

wherein,

X is selected from the group consisting of substituted or unsubstituted alkyl, aryl, heteroaryl, fused arylaryl, fused heteroarylaryl, fused heteroarylheteroaryl, unfused arylaryl, unfused heteroarylaryl, unfused heteroarylheteroaryl and heterocyclyl groups;

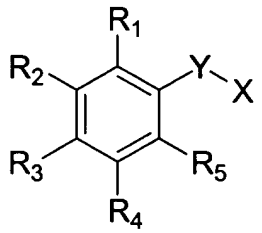
Y is a linking moiety; and,

Z is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, fused arylaryl, fused heteroarylaryl, and fused arylheteroaryl,

or a pharmaceutically acceptable salt, ester, or prodrug thereof and a pharmaceutically acceptable excipient wherein said composition elicits an immune response in a subject.

2. (Canceled) The composition of claim 1 wherein Y is a covalent bond or a linking moiety selected from the group consisting of -CO-, -O-, -S-, -CH_2-, and -NH-.

3. (Canceled) The composition of claim 1 wherein the SMIP compound is compound of formula (II):



II

wherein,

Y is absent or a linking moiety;

X is selected from the group consisting of substituted or unsubstituted alkyl, aryl, heteroaryl, fused arylaryl, fused heteroarylaryl, fused heteroarylheteroaryl, unfused arylaryl, unfused heteroarylaryl, unfused heteroarylheteroaryl and heterocyclyl groups;

R_1 is selected from the group consisting of H, halogen, hydroxy, amino, nitro, cyano, carboxylic acid, and substituted or unsubstituted alkyl, alkenyl, alkynyl alkylamino, aminoalkyl, alkylcarbonyloxy, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, carbonylamino, alkylcarbonylamino, alkoxy, alkoxyalkyl, carbocyclyl, heterocyclyl, aryl, heteroaryl, fused arylaryl, unfused arylaryl fused heteroarylaryl, unfused heteroarylaryl, fused arylheteroaryl and unfused arylheteroaryl groups;

R_2 is selected from the group consisting of H, halogen, hydroxy, amino, nitro, cyano, carboxylic acid, and substituted or unsubstituted alkyl, alkenyl, alkynyl alkylamino, aminoalkyl, alkylcarbonyloxy, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, carbonylamino, alkylcarbonylamino, alkoxy, alkoxyalkyl, carbocyclyl, heterocyclyl, aryl, heteroaryl, fused arylaryl, unfused arylaryl fused heteroarylaryl, unfused heteroarylaryl, fused arylheteroaryl and unfused arylheteroaryl groups; or,

R_2 is taken together with R_3 to form a substituted or unsubstituted 5-7 membered ring consisting of all carbon atoms or 1-2 heteroatoms selected from the group consisting of O, S, N; or,

R_3 is selected from the group consisting of H, halogen, hydroxy, amino, nitro, cyano, carboxylic acid, and substituted or unsubstituted alkyl, alkenyl, alkynyl alkylamino, aminoalkyl, alkylcarbonyloxy, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, carbonylamino, alkylcarbonylamino, alkoxy, alkoxyalkyl, carbocyclyl, heterocyclyl, aryl, heteroaryl, fused arylaryl, unfused arylaryl fused heteroarylaryl, unfused heteroarylaryl, fused arylheteroaryl and unfused arylheteroaryl groups;

R_4 is selected from the group consisting of H, halogen, hydroxy, amino, nitro, cyano, carboxylic acid, and substituted or unsubstituted alkyl, alkenyl, alkynyl alkylamino, aminoalkyl, alkylcarbonyloxy, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, carbonylamino, alkylcarbonylamino, alkoxy, alkoxyalkyl, carbocyclyl, heterocyclyl, aryl, heteroaryl, fused arylaryl, unfused arylaryl fused heteroarylaryl, unfused heteroarylaryl, fused arylheteroaryl and unfused arylheteroaryl groups; and

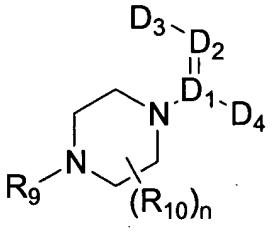
R_5 is selected from the group consisting of H, halogen, hydroxy, amino, nitro, cyano, carboxylic acid, and substituted or unsubstituted alkyl, alkenyl, alkynyl alkylamino, aminoalkyl, alkylcarbonyloxy, alkoxycarbonyl, aminocarbonyl, alkylaminocarbonyl, carbonylamino, alkylcarbonylamino, alkoxy, alkoxyalkyl, carbocyclyl, heterocyclyl, aryl, heteroaryl, fused arylaryl, unfused arylaryl fused heteroarylaryl, unfused heteroarylaryl, fused arylheteroaryl and unfused arylheteroaryl groups,

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

4. (Canceled) The composition of claim 3 wherein Y is a linking moiety is selected from the group consisting of -CO-, -O-, -S-, -CH_2-, -NH-; with the proviso that an aminocarbonyl group is not formed between the attachment of Y and X.

5. (Canceled) The composition of claim 1 wherein the SMIP compound is selected from the group consisting of an acylpiperazine, an indoledione, a tetrahydroisoquinoline, a benzocyclodione, an amino azavinyl compound, a thiosemicarbazone, a lactam, an aminobenzimidazole quinolinone, a hydropthalamide, a benzophenone, an isoxazole, a sterol, a quinazolinone, a pyrole, an anthraquinone, a quinoxaline, a triazine, an benzazole, and a pyrazolopyrimidine, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

6. (Canceled) The composition of claim 1 wherein the SMIP compound is an acylpiperazine compound of formula (III):



III

wherein,

R_9 is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, arylalkyl, arylalkenyl, heteroarylalkyl, and heteroarylalkenyl;

R_{10} is substituted or unsubstituted alkyl;

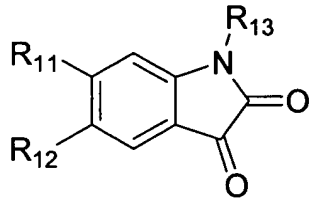
n is an integer from 0-2; and

if D_1 is carbon then D_2 is oxygen, D_3 is absent, and D_4 is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, carbocycyl, alkoxyaryl, fused arylaryl, fused arylheteroaryl, and fused heteroarylaryl; or,

if D_1 is nitrogen than D_2 is nitrogen, D_4 is absent, and D_3 is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, carbocycyl, alkoxyaryl, fused arylaryl, fused arylheteroaryl, and fused heteroarylaryl,

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

7. (Canceled) The composition of claim 1 wherein the SMIP compound is an indoledione compound of formula (IV):



IV

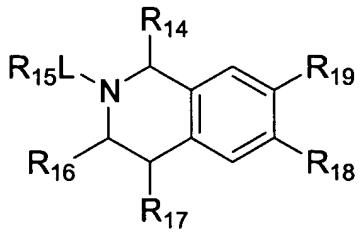
wherein,

R_{11} and R_{12} are independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino,

heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl;

R_{13} is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, arylalkyl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, and alkylbenzyl, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

8. (Canceled) The composition of claim 1 wherein the SMIP compound is a tetrahydraisoquinoline compound is a compound of Formula (V):



V

wherein,

L is a covalent bond or selected from the group consisting of -CH_2-, -CO-, -O-, -S-, CHF, -NH-, -NR_{20}-, where R_{20} is lower alkyl;

R_{14} is selected from the group consisting of hydrogen, halogen, and substituted or unsubstituted alkyl;

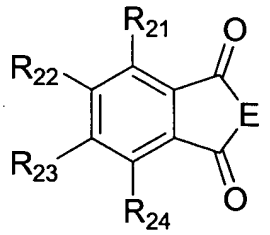
R_{15} is selected from the group consisting of substituted or unsubstituted carbocyclyl, aryl, arylalkyl, alkoxyaryl, heteroaryl, heterocyclyl;

R_{16} is selected from the group consisting of hydrogen, halogen, and substituted or unsubstituted alkyl;

R_{17} is selected from the group consisting of hydrogen, halogen, and substituted or unsubstituted alkyl;

R_{18} and R_{19} are independently selected from the group consisting of H, hydroxy, halogen, alkoxy, amino, unsubstituted alkyl, substituted alkyl, and alkylamino, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

9. (Canceled) The composition of claim 1 wherein the SMIP compound is a benzocyclodione compound of formula (VI):



VI

wherein,

E is selected from the group consisiting of NR_{25} or $CR_{26}R_{27}$;

R_{21}, R_{23}, and R_{24} are independently selected from the group consisting of H, hydroxy, halogen, alkoxy, amino, unsubstituted alkyl, substituted alkyl, and alkylamino;

R_{22} is selected from the group consisiting or H, hydroxy, halogen, alkoxy, amino, and unsubstituted or substituted alkyl, and alkylamino, arylalkyl, heteroarylalkyl, aryl, heteroaryl, arylcarbonyl, heterocyclyl, heterocyclylalkyl, and heteroarylcarbonyl;

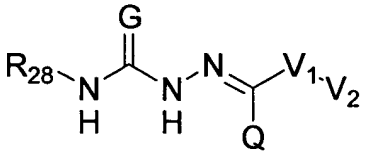
R_{25} is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, heterocyclyl, carbocyclyl, arylalkyl, heteroarylalkyl, and heterocyclyalkyl;

R_{26} is selected from the group consisiting of H, halogen, hydroxy, amino, and substituted or unsubstituted alkyl, carbonylalkyl, and alkylcarbonylalkyl;

R_{27} is selected from the group aryl, arylalkyl, heteroarylalkyl, heterocyclyl, heterocyclylalkyl, carbocyclyl, arylcarbonylalkyl, and arylalkylcarbonyl,

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

10. (Canceled) The composition of claim 1 wherein the SMIP compound is an aminoazavinyl compound of formula (VII):



VII

wherein,

G is either S or NH;

R_{28} is selected from the group consisting of H, and substituted or unsubstituted alkyl, aryl, heteroaryl, heteroarylalkyl, arylalkyl, carbocyclyl, carbocyclylalkyl, heterocyclyl, and heterocyclylalkyl;

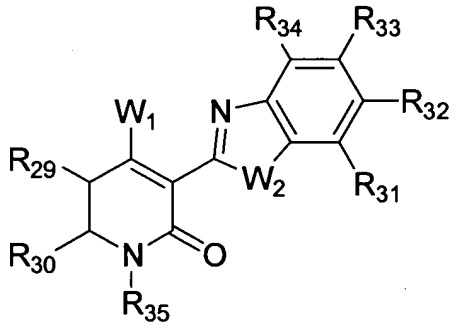
Q is selected from the group consisting of hydrogen, substituted alkyl, unsubstituted alkyl, and aryl, substituted aryl, heteroaryl, substituted heteroaryl, heterocyclyl, substituted heterocyclyl, biaryl, substituted biaryl, arylheteroaryl, substituted arylheteroaryl, heteroarylheteroaryl, and substituted heteroarylheteroaryl;

V_1 is selected from the group consisting of alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heteroaryl, substituted heteroaryl, heteroarylalkyl, substituted heteroarylalkyl, alkoxy, substituted alkoxy, aminocarbonyl, alkoxycarbonyl, carboxyl sulfonyl, methanesulfonyl, and substituted or unsubstituted alkylcarbonyl, arylcarbonyl, aralkylcarbonyl, heteroarylcarbonyl, heteroaralkylcarbonyl, alkylcarbonyloxy, arylcarbonyloxy, aralkylcarbonyloxy, heteroarylcarbonyloxy, heteroaralkylcarbonyloxy, alkylaminocarbonyloxy, arylaminocarbonyloxy, formyl, loweralkylcarbonyl, loweralkoxycarbonyl, aminocarbonyl, aminoaryl, alkylsulfonyl, sulfonamido, aminoalkoxy, alkylamino, heteroarylamino, alkylcarbonylamino, alkylaminocarbonylamino, arylaminocarbonylamino, aralkylcarbonylamino, heteroarylcarbonylamino, arylcarbonylamino, cycloamidino, cycloalkyl, cycloimido, arylsulfonyl and arylsulfonamido;

V_2 is selected from the group consisting of hydrodgen, halogen, alkyl, substituted alkyl, aryl, substituted aryl, arylalkyl, substituted arylalkyl, heteroaryl, substituted heteroaryl, heteroarylalkyl, substituted heteroarylalkyl, alkoxy, substituted alkoxy, aminocarbonyl, alkoxycarbonyl, carboxyl sulfonyl, methanesulfonyl, and substituted or unsubstituted alkylcarbonyl, arylcarbonyl, aralkylcarbonyl, heteroarylcarbonyl, heteroaralkylcarbonyl, alkylcarbonyloxy, arylcarbonyloxy, aralkylcarbonyloxy, heteroarylcarbonyloxy, heteroaralkylcarbonyloxy, alkylaminocarbonyloxy, arylaminocarbonyloxy, formyl, loweralkylcarbonyl, loweralkoxycarbonyl, aminocarbonyl, aminoaryl, alkylsulfonyl, sulfonamido, aminoalkoxy,

alkylamino, heteroarylamino, alkylcarbonylamino, alkylaminocarbonylamino, arylaminocarbonylamino, aralkylcarbonylamino, heteroarylcarbonylamino, arylcarbonylamino, cycloamidino, cycloalkyl, cycloimido, arylsulfonyl and arylsulfonamido, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

11. (Canceled) The composition of claim 1 wherein the SMIP compound is an ABIQ compound of formula (VIII):



VIII

wherein,

W_1 is selected from the group consisting of –OH, -OR_{36} groups, -$NR_{37}R_{38}$;

W2 is selected from the group consisting of O, S, and NR_{39} groups;

R_{29} and R_{30} join to form a 5 to 6 membered substituted or unsubstituted ring comprising all carbon atoms or at least one O, N, or S atom;

R_{35} and R_{39} may be the same or different and are selected from the group consisting of H, -OH substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, -C(=O)H, -C(=O)-alkyl groups, and –C(=O)-aryl groups;

R_{31}, R_{32}, R_{33}, and R_{34} may be the same or different and are independently selected from the group consisting of H, Cl, Br, F, I, -NO_2, -CN, -OH, -OR_{40} groups, -$NR_{41}R_{42}$ groups, -C(=O)R_{43} groups, -SH groups, substituted and unsubstituted amidinyl groups, substituted and unsubstituted guanidinyl groups, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted alkenyl groups, substituted and unsubstituted alkynyl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted

diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted diheterocyclylaminoalkyl groups, substituted and unsubstituted (alkyl)(heterocyclyl)aminoalkyl groups, substituted and unsubstituted (aryl)(heterocyclyl)aminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

R_{36} is selected from the group consisting of substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)H, -C(=O)-alkyl groups, –C(=O)-aryl groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, -C(=O)NH_2, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, -C(=O)N(alkyl)$_2$ groups, -C(=O)N(aryl)$_2$ groups, -C(=O)N(alkyl)(aryl) groups, -NH_2, -NH(alkyl) groups, -NH(aryl) groups, -N(alkyl)$_2$ groups, -N(alkyl)(aryl) groups, -N(aryl)$_2$ groups, -C(=O)NH(heterocyclyl) groups, -C(=O)N(heterocyclyl)$_2$ groups, -C(=O)N(alkyl)(heterocyclyl) groups, and -C(=O)N(aryl)(heterocyclyl) groups;

R_{37} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R_{38} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -OH, alkoxy groups, aryloxy groups, -NH_2, substituted and unsubstituted heterocyclylalkyl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and

unsubstituted alkylamino groups, substituted and unsubstituted arylamino groups, substituted and unsubstituted dialkylamino groups, substituted and unsubstituted diarylamino groups, substituted and unsubstituted (alkyl)(aryl)amino groups, -C(=O)H, -C(=O)-alkyl groups, -C(=O)-aryl groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, $-C(=O)-N(heterocyclyl)_2$ groups, -C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted diheterocyclylaminoalkyl groups, substituted and unsubstituted (alkyl)(heterocyclyl)aminoalkyl groups, substituted and unsubstituted (aryl)(heterocyclyl)aminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups;

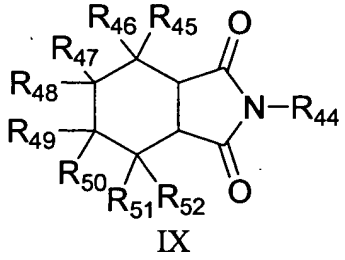
R_{41} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, and substituted and unsubstituted heterocyclyl groups;

R_{42} is selected from the group consisting of H, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, substituted and unsubstituted heterocyclyl groups, -C(=O)H, -C(=O)-alkyl groups, –C(=O)-aryl groups, $-C(=O)NH_2$, -C(=O)NH(alkyl) groups, -C(=O)NH(aryl) groups, $-C(=O)N(alkyl)_2$ groups, $-C(=O)N(aryl)_2$ groups, -C(=O)N(alkyl)(aryl) groups, -C(=O)O-alkyl groups, -C(=O)O-aryl groups, substituted and unsubstituted aminoalkyl groups, substituted and unsubstituted alkylaminoalkyl groups, substituted and unsubstituted dialkylaminoalkyl groups, substituted and unsubstituted arylaminoalkyl groups, substituted and unsubstituted diarylaminoalkyl groups, substituted and unsubstituted (alkyl)(aryl)aminoalkyl groups, substituted and unsubstituted heterocyclylalkyl groups, -C(=O)-heterocyclyl groups, -C(=O)-O-heterocyclyl groups, -C(=O)NH(heterocyclyl) groups, -C(=O)-

$N(heterocyclyl)_2$ groups, -C(=O)-N(alkyl)(heterocyclyl) groups, -C(=O)-N(aryl)(heterocyclyl) groups, substituted and unsubstituted heterocyclylaminoalkyl groups, substituted and unsubstituted diheterocyclylaminoalkyl groups, substituted and unsubstituted (heterocyclyl)(alkyl)aminoalkyl groups, substituted and unsubstituted (heterocyclyl)(aryl)aminoalkyl groups, substituted and unsubstituted hydroxyalkyl groups, substituted and unsubstituted alkoxyalkyl groups, substituted and unsubstituted aryloxyalkyl groups, and substituted and unsubstituted heterocyclyloxyalkyl groups; and

R_{43} is selected from the group consisting of H, $-NH_2$, -NH(alkyl) groups, -NH(aryl) groups, $-N(alkyl)_2$ groups, $-N(aryl)_2$ groups, -N(alkyl)(aryl) groups, -NH(heterocyclyl) groups, -N(heterocyclyl)(alkyl) groups, -N(heterocyclyl)(aryl) groups, $-N(heterocyclyl)_2$ groups, substituted and unsubstituted alkyl groups, substituted and unsubstituted aryl groups, -OH, substituted and unsubstituted alkoxy groups, substituted and unsubstituted heterocyclyl groups, substituted and unsubstituted aryloxy groups, heterocyclyloxy groups, -NHOH, -N(alkyl)OH groups, -N(aryl)OH groups, -N(alkyl)O-alkyl groups, -N(aryl)O-alkyl groups, -N(alkyl)O-aryl groups, and -N(aryl)O-aryl groups, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

12. (Canceled) The composition of claim 1 wherein the SMIP compound is an hydropthalamide compound of formula (IX):



IX

wherein,

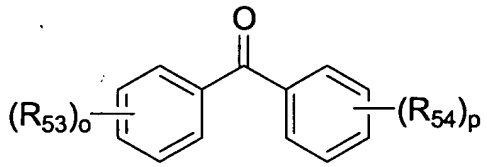
R_{44} is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, arylalkyl, heteroarylalkyl, fused arylaryl, unfused arylaryl, fused

heteroarylaryl, unfused heteroarylaryl, fused arylheteroaryl, and unfused arylheteroaryl;

R_{45}, R_{47}, R_{49}, and R_{51} may be the same or different and are independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl; and

R_{46}, R_{48}, R_{50}, and R_{52} may be the same or different and are independently selected from the group consisting of H, halogen, and substituted or unsubstituted alkyl groups, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

13. (Canceled) The composition of claim 1 wherein the SMIP compound is a benzophenone compound of formula (X):



X

wherein,

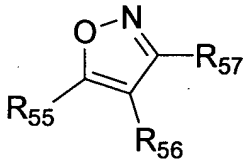
R_{53} is independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl;

R_{54} is independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino,

arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl; and

o and p are integers from 0-4, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

14. (Canceled) The composition of claim 1 wherein the SMIP compound is an isoxazole compound of formula (XI):



XI

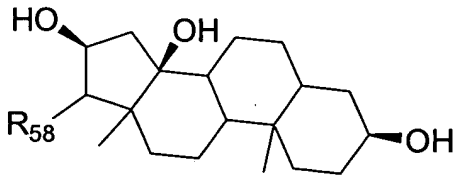
wherein,

R_{55} is selected from the group consisting of substituted or unsubstituted aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, and heterocyclylalkyl;

R_{56} is selected from the group consisting of substituted or unsubstituted aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, and heterocyclylalkyl;

R_{57} is selected from the group consisting of H, halogen, hyroxy, and substituted or unsubstituted alkyl, aryl, heteroaryl, heterocyclyl, and carbonyl, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

15. (Canceled) The composition of claim 1 wherein the SMIP compound is a sterol compound of formula (XII):

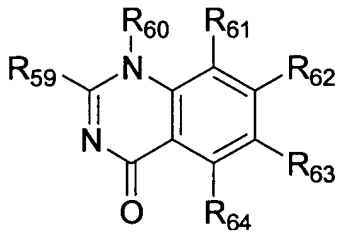


XII

wherein,

R_{58} is selected from the group consisting of substituted or unsubstituted aryl, arylalkyl, heteroaryl, heteroarylalkyl, heterocyclyl, and heterocyclylalkyl, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

16. (Canceled) The composition of claim 1 wherein the SMIP compound is a quinazilinone compound of formula (XIII):



XIII

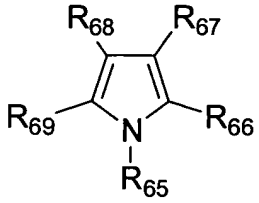
wherein,

R_{59} is selected from the group consisting of H, halogen, hydroxy, and substituted or unsubstituted alkyl, aminoalkyl, alklyaminoalkyl, alkoxy, dialkylaminoalkyl, hydroxyalkyl, alkenyl, alkynyl, carbocyclyl, carbocyclylalkyl, heterocyclyl, and heterocyclylalkyl;

R_{60} is selected from the group consisting of substituted or unsubstituted aryl, heteroaryl, arylalkyl, heteroarylalkyl, and heterocyclylalkyl; and,

R_{61}, R_{62}, R_{63}, and R_{64} may be the same or different and are independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl groups, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

17. (Canceled) The composition of claim 1 wherein the SMIP compound is a pyrrole compound of formula (XIV):



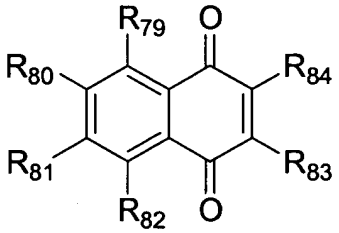
XIV

wherein,

R_{65} is selected from the group consisting of H, hydroxy, and substituted or unsubstituted alkyl, aryl, heteroaryl, heteroarylalkyl, arylalkyl, heteroarylaminoalkyl, arylaminoalkyl, heteroaryloxyalkyl, and aryloxyalkyl groups;

R_{66}, R_{67}, R_{68}, and R_{69} may be the same or different and are independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl groups, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

18. (Canceled) The composition of claim 1 wherein the SMIP compound is an anthraquinone compound is a compound of Formula (XVI):



XVI

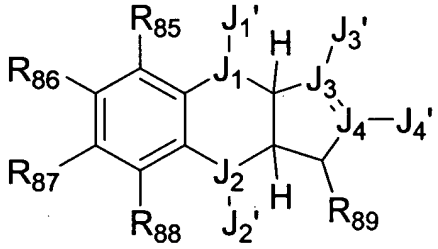
wherein,

R_{79}, R_{80}, R_{81}, and R_{82} may be the same or different and are independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, sulfonyl, aminosulfonyl, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl groups; and,

R_{83} and R_{84} are taken together to form a substituted or unsubstituted 5-6 membered ring containing all carbon atoms or 1-2 heteroatoms selected from the group consisting of O, S, and N,

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

19. (Canceled) The composition of claim 1 wherein the SMIP compound is an quinoxaline compound of formula (XVII):



XVII

wherein,

J_1 is either C or N,

J_1' is selected from the group consisting of H, substituted aryl, unsubstituted aryl, substituted heteroaryl, and unsubstituted heteroaryl;

J_2 is either C or N,

J_2' is selected from the group consisting of H, substituted aryl, unsubstituted aryl, substituted heteroaryl, and unsubstituted heteroaryl;

J_3 is selected from the group consisting of -CO-, -NH-, and -N=;

if J_4 is -O- then J_4' is absent; or,

if J_4 is =C- then J_4' is selected from the group consisting of H and substituted or unsubstituted alkyl, alkoxy, aryl, heteroaryl, heteroarylalkyl, arylalkyl, aminoalkyl, alkylamino, and alkylthio groups; and,

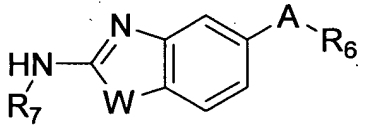
R_{85}, R_{86}, R_{87}, R_{88}, and R_{89} may be the same or different and are independently selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, sulfonyl, aminosulfonyl, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino,

arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl groups,

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

20. (Canceled) The composition of claim 1 wherein the SMIP compound is a triazine compound, or a pharmaceutically acceptable salt, ester, or prodrug thereof.

21. (Currently Amended) ~~The composition of claim 1~~ A pharmaceutical composition comprising a SMIP compound and an antigen, wherein the SMIP compound is a benzazole compound of formula (XXI):



XXI

wherein,

A is selected from the group consisting of -O-, -S-, -NH-, and $-NR_8-$;

W is selected from the group consisting of $-CH_2-$, -O-, -S-, -NH-, and $-NR_8-$;

R_7 is selected from the group consisting of carbocyclyl, unfused carbocyclylcarbocyclyl, substituted aryl, unsubstituted aryl, substituted heteroaryl, unsubstituted heteroaryl, substituted fused arylheteroaryl, unsubstituted fused arylheteroaryl, substituted unfused arylaryl and unsubstituted unfused arylaryl;

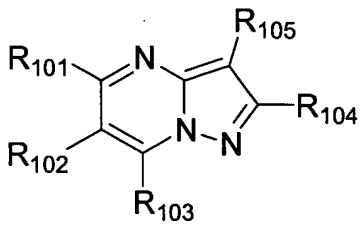
R_6 is selected from the group consisting of substituted or unsubstituted aryl, and heteroaryl; and,

R_8 is independently substituted or unsubstituted alkyl;

or a pharmaceutically acceptable salt, ester, or prodrug thereof and a pharmaceutically acceptable excipient;

wherein said composition elicits and immune response in a subject.

22. (Canceled) The composition of claim 1 wherein the SMIP compound is a pyrazalopyrimidine compound of formula (XXII):



XXII

wherein,

R_{101} is selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, sulfonyl, aminosulfonyl, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl groups;

R_{102} is selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl groups;

R_{103} is selected from the group consisting of H, nitro, halogen, amino, hydroxy, cyano, carboxcyclic acid, trifluoromethyl, and substituted or unsubstituted alkyl, aryl, heteroaryl, alkoxy, alkylcarbonyl, alkylcarbonylamino, alkylaminocarbonyl, aminocarbonyl, arylalkoxy, heteroarylalkoxy, alkylamino, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, and carbocyclyl groups;

R_{104} is selected from the group consisting of H and substituted or unsubstituted aryl, heteroaryl, arylalkoxy, heteroarylalkoxy, arylalkylamino, arylamino, heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, carbocyclylalkyl and carbocyclyl groups;

R_{105} is selected from the group consisting of H and substituted or unsubstituted aryl, heteroaryl, arylalkoxy, heteroarylalkoxy, arylalkylamino, arylamino,

heteroarylamino, heteroarylaminoalkyl, heterocyclyl, heterocyclylalkoxy, heterocyclylalkyl, carbocyclylalkyl and carbocyclyl groups;

wherein at least one of R_{104} and R_{105} is not H,

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

23. (Canceled) A pharmaceutical composition of one of claims 1-22, further comprising an antigen.

24. (Currently Amended) The pharmaceutical composition of claim ~~23~~ 21 wherein the antigen is associated with a disease selected from the group consisting of BCG, cholera, plague, typhoid, hepatitis B infection, influenza, inactivated polio, rabies, measles, mumps, rubella, oral polio, yellow fever, tetanus, diphtheria, hemophilus influenzae b, meningococcus infection, and pneumococcus infection.

25. (Canceled) A method of stimulating an immune response in a subject comprising administering a pharmaceutical composition of one of claims 1-22.

26. (Currently Amended) The ~~method of claim 25~~ pharmaceutical composition according to claim 21 wherein the immune response is the cellular production of one or more cytokines.

27. (Canceled) A method of treating asthma comprising administering to a patient in need thereof, an effective amount of a pharmaceutical composition from one of claims 1-22.

28. (Canceled) A method of vaccinating a subject comprising administering the pharmaceutical composition of one of claims 1-22 prior to, at the same time as, or after administration of a vaccine composition comprising an antigen.

29. (Canceled) A method of vaccinating a subject comprising administering the pharmaceutical composition of claim 23

30. (Currently Amended) The pharmaceutical composition of ~~claim 1~~claim 21 wherein the SMIP compound is selected from the group consisting of:

N-methyl-4-[(2-{[2-(1-methylethyl)phenyl]amino}-1H-benzimidazol-5-yl)oxy]pyridine-2-carboxamide;

N-methyl-4-{[1-methyl-2-({3-[(trimethylsilyl)ethynyl]phenyl}amino)-1H-benzimidazol-5-yl]oxy}pyridine-2-carboxamide;

N-methyl-4-[(1-methyl-2-{[2-(phenylcarbonyl)phenyl]amino}-1H-benzimidazol-5-yl)oxy]pyridine-2-carboxamide;

~~4-(methyloxy)-N-[6-(methyloxy)-1,3-benzothiazol-2-yl]-3-nitrobenzamide;~~

4-({2-[(4-butylphenyl)amino]-1,3-benzothiazol-5-yl}oxy)-N-methylpyridine-2-carboxamide;

N-methyl-4-({1-methyl-2-[(6-pyrrolidin-1-ylpyridin-3-yl)amino]-1H-benzimidazol-5-yl}oxy)pyridine-2-carboxamide;

4-({2-[1,1'-bi(cyclohexyl)-2-ylamino]-1-methyl-1H-benzimidazol-5-yl}oxy)-N-methylpyridine-2-carboxamide;

4-({2-[(4-chlorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl}oxy)-N-1,3-thiazol-2-ylpyridine-2-carboxamide;

4-[(1-methyl-2-{[2-(methyloxy)phenyl]amino}-1H-benzimidazol-5-yl)oxy]-N-[3-(methyloxy)propyl]pyridine-2-carboxamide; and,

4-({2-[(4-ethylphenyl)amino]-1,3-benzoxazol-5-yl}oxy)-N-methylpyridine-2-carboxamide.

31. (Canceled) The pharmaceutical composition of claim 1 wherein the SMIP compound is selected from the group consisting of:

5-chloro-1-{[3-(trifluoromethyl)phenyl]methyl}-1H-indole-2,3-dione;

1-[(4-methylphenyl)methyl]-5-nitro-1H-indole-2,3-dione;

5-chloro-1-{[3-(trifluoromethyl)phenyl]methyl}-1H-indole-2,3-dione;

1-methyl-6,7-bis(methyloxy)-2-{[3-(methyloxy)phenyl]carbonyl}-1,2,3,4-tetrahydroisoquinoline;

1-methyl-6,7-bis(methyloxy)-2-(naphthalen-2-ylcarbonyl)-1,2,3,4-tetrahydroisoquinoline; and,

[2-(trifluoromethyl)phenyl]methyl 3-[4-(aminocarbonyl)phenyl]-2-cycloheptyl-1-oxo-1,2,3,4-tetrahydroisoquinoline-4-carboxylate.

32. (Canceled) The pharmaceutical composition of claim 1 wherein the SMIP compound is selected from the group consisting of:

ethyl 4-{[5-[3,4-bis(methyloxy)phenyl]-7-(trifluoromethyl)pyrazolo[1,5-a]pyrimidin-3-yl]carbonyl}piperazine-1-carboxylate;

5-[3,4-bis(methyloxy)phenyl]-3-(piperidin-1-ylcarbonyl)-7-(trifluoromethyl)pyrazolo[1,5-a]pyrimidine;

5-[3,4-bis(methyloxy)phenyl]-N-methyl-N-(2-pyridin-2-ylethyl)-7-(trifluoromethyl)pyrazolo[1,5-a]pyrimidine-2-carboxamide;

5-propyl-2-thien-2-ylpyrazolo[1,5-a]pyrimidin-7-ol;

anthra[1,2-c][1,2,5]thiadiazole-6,11-dione;

benzo[b]oxanthrene-6,11-dione;

ethyl 6,11-dioxo-6,11-dihydrobenzo[b]phenazine-2-carboxylate;

N,N-dimethyl-9,10-dioxo-9,10-dihydroanthracene-1-sulfonamide; and,

2-(trifluoromethyl)-3-{[3,4,5-tris(methyloxy)phenyl]carbonyl}naphtho[2,3-b]furan-4,9-dione.

33. (Canceled) The pharmaceutical composition of claim 1 wherein the SMIP compound is selected from the group consisting of:

2-(2-oxopropyl)-2-phenyl-1H-indene-1,3(2H)-dione;

5,6-dichloro-2-[2-chloro-5-(trifluoromethyl)phenyl]-1H-isoindole-1,3(2H)-dione;

ethyl 4-{5-[(3-nitrophenyl)carbonyl]-1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl}benzoate;

5,6-dichloro-2-[2-chloro-5-(trifluoromethyl)phenyl]-1H-isoindole-1,3(2H)-dione;

2-(4-amino-2-oxo-1-propyl-1,2-dihydroquinolin-3-yl)-1H-benzimidazole-6-carbonitrile;

4-amino-6-fluoro-7-({[4-(methyloxy)phenyl]methyl}amino)-3-[5-(4-methylpiperazin-1-yl)-1H-benzimidazol-2-yl]quinolin-2(1H)-one;

6-chloro-3-(5-chloro-1H-benzimidazol-2-yl)-4-{[2-(dimethylamino)ethyl]amino}quinolin-2(1H)-one; and,

4-amino-5-(1H-benzimidazol-2-yl)-1-methyl-1,7-dihydro-6H-pyrazolo[3,4-b]pyridin-6-one.

34. (Canceled) The pharmaceutical composition of claim 1 wherein the SMIP compound is selected from the group consisting of:

3-bromo-4-{[(2-fluorophenyl)methyl]oxy}-5-(methyloxy)benzaldehyde thiosemicarbazone;

2-[4-(3-chlorophenyl)piperazin-1-yl]-5-nitrobenzaldehyde thiosemicarbazone;

4-{[2-(3-chlorophenyl)ethyl]amino}-3-nitrobenzaldehyde thiosemicarbazone;

(1E)-6,9-dimethyl-2,3,4,9-tetrahydro-1H-carbazol-1-one thiosemicarbazone;

(2E)-1,1'-bi(cyclohexan)-1-en-2-one thiosemicarbazone;

4-{[2-(4-chlorophenyl)ethyl]amino}-3-nitrobenzaldehyde thiosemicarbazone;

4-(diethylamino)-2-{[(4-fluorophenyl)methyl]oxy}benzaldehyde N-(2-piperidin-1-ylethyl)thiosemicarbazone;

3,4-bis(methyloxy)benzaldehyde (1,1-dioxido-1,2-benzisothiazol-3-yl)(methyl)hydrazone; and,

(2E)-2-[(4-chlorophenyl)(5-chlorothien-2-yl)methylidene]hydrazine carboximidamide.

35. (Canceled) The pharmaceutical composition of claim 1 wherein the SMIP compound is selected from the group consisting of:

5,5-dimethyl-4-methylidene-3-(2,4,6-trinitrophenyl)-1,3-oxazolidin-2-one;

5-methyl-2-[4-(methyloxy)phenyl]hexahydro-1H-isoindole-1,3(2H)-dione;

5-methyl-2-(4-methylphenyl)hexahydro-1H-isoindole-1,3(2H)-dione;

N~2~-(4-chlorophenyl)-6,6-dimethyl-1,6-dihydro-1,3,5-triazine-2,4-diamine;

(7Z)-7-(furan-2-ylmethylidene)-3-phenyl-3,4-dihydro-2H-[1,3]thiazolo[3,2-a][1,3,5]triazin-6(7H)-one;

(3aR,9R,9aR)-6,7-dihydroxy-9-[3,4,5-tris(methyloxy)phenyl]-3a,4,9,9a-etrahydronaphtho[2,3-c]furan-1(3H)-one;

6-chloro-2-(ethyloxy)-4-methyl-3-(4-nitrophenyl)-3a,4,9,9a-tetrahydro-3H-pyrrolo[2,3-b]quinoxaline;

ethyl 2-(ethyloxy)-4-methyl-3a,4,9,9a-tetrahydro-3H-pyrrolo[2,3-b]quinoxaline-3-carboxylate;

ethyl 4-({[2,5-bis(methyloxy)phenyl]amino}methyl)-3,5-dimethyl-1H-pyrrole-2-carboxylate;

1-{3-[(6-amino-5-nitropyridin-2-yl)amino]propyl}-4-(2-chlorophenyl)-N-[(2S)-2-hydroxypropyl]-1H-pyrrole-3-carboxamide;

(4-methylphenyl)(5-nitro-2-piperidin-1-ylphenyl)methanone;

(2S,5R)-N~1~-(4-methylphenyl)-5-phenyl-N~2~-(2-pyridin-2-ylethyl)pyrrolidine-1,2-dicarboxamide;

2-[(3S)-3-(acetylamino)-2-oxopyrrolidin-1-yl]-N-[2-(4-fluorophenyl)ethyl]acetamide;

N-[2-(2,4-dichlorophenyl)ethyl]-4-({(Z)-[(4,4-difluorocyclohexyl)imino][(3S)-3-methylpiperazin-1-yl]methyl}amino)benzamide;

4-[4-(methyloxy)phenyl]-5-phenylisoxazole;

methyl 4-{[4-(1-methylethyl)-2,3-dioxo-7-(trifluoromethyl)-3,4-dihydroquinoxalin-1(2H)-yl]methyl}benzoate;

(3beta,16beta)-3,14,16-trihydroxybufa-20,22-dienolide; and,

2-(aminomethyl)-1-(2-pyridin-2-ylethyl)quinazolin-4(1H)-one.

36. (New) The pharmaceutical composition of claim 21, wherein the antigen is associated with influenza.

37. (New) The pharmaceutical composition of claim 21, wherein the antigen comprises haemagglutinin and/or neuraminidase surface protein.

38. (New) The pharmaceutical composition according to any one of claims 21, 24, 26, 36, or 37, further comprising an adjuvant.

39. (New) The pharmaceutical composition of claim 38, wherein the adjuvant is MF59.